



US Army Corps  
of Engineers ®

# Project Management Plan

Project Title: Initiative to improve recreational boating on  
Lake Barkley.

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**1.0 Purpose.** The purpose is to develop a plan for improving recreational boating on Lake Barkley. Plans to improve boating, while maintaining integration of authorized purposes and missions of flood control, hydropower generation and navigation, is critical to meeting customer and stakeholder demands. To preclude lengthy and costly actions associated with National Environmental Policy Act (NEPA), avenues for increasing boating experiences without changing pool levels will be explored.

**1.1 PMP Purpose.** The purpose of the Project Management Plan (PMP) is to clearly define primary focus areas (or goals) and high priority issues.

**1.2 PMP Management.** The Project Delivery Team (PDT) will develop the PMP for approval. This is a living document and as new information is obtained or conditions change, edits may be made. Approval must be obtained for any significant amendments to the PMP. Significant changes are defined as follows:

- Any modification to the PMP that increases costs.
- Any extension of the completion schedule for an item of work.
- Any assignment of work to Federal or state agencies not in current budget.

## **2.0 Focus.**

**2.1 Focus Areas.** Strategic focus areas for the PDT are public safety, economic benefit, environmental stewardship, aesthetics and aquatic health. Sources of information include, but are not limited to:

Boat dock builders  
KDFWR officers  
TWRA offices  
Boat/motor repair shops  
Local fisherman/hunters (old timers)  
State & Federal boating accident reports involving collisions  
Marina and Resort owners  
Corps Park Rangers  
Boat dock permittees  
United States Coast Guard and Coast Guard Auxiliary

## **3.0 Background.**

**3.1 Authorized Purpose.** Barkley Dam was authorized by Congress in 1946, for flood control, navigation and hydroelectric power generation. The dam was completed in 1966 and is managed by The US Army Corps of Engineers. The adjacent Kentucky Lake was constructed in 1944 and is managed by the Tennessee Valley Authority (TVA). Both agencies are mandated to meet their authorized missions. Recreation was included as a Corps mission with the Flood Control Act of 1944, as amended.

**3.2 Terrain.** The terrain along the Cumberland River is characterized by broad river flood plains. Impoundment of this type terrain results in flatland reservoirs characterized by wide bodies of shallow water.

### **3.3 Lake Level Fluctuation.**

**3.3(a)** Lake levels fluctuate during the year in order to meet the three primary missions, and provide fish and wildlife habitat. Elevation 359 is referred to as “summer pool” and elevation 354 is referred to as “winter pool”. Because of the unregulated canal between the two lakes, they must be operated in unison with regard to lake levels.

**3.3(b)** The schedule of water level changes throughout the year is referred to as the “guide curve”. Elevation 359 is reached on or about April 1 of each year and held until approximately July 4, when the lake begins a slow descent to elevation 354 on December 1. Winter pool is maintained until March 31 of each year. The guide curve is subject to change due to yearly fluctuations in rainfall, as well as upstream and downstream flood events.

**3.4 Evolving Use.** Boating has changed dramatically over the past 20 years. In 1985 there were approximately 750 commercial marina slips serving recreational boaters on Lake Barkley. In 2005 there were nearly 1700 slips; a 123% increase. Today’s vessels require more water depth as they are larger and heavier than their predecessors. Increasing visitation and private development around the lake, along with greater demand for recreational boating opportunities has resulted in requests to change the water level guide curve.

### **3.5 Former Requests for Revisions to Guide Curve.**

**3.5(a)** In 1980, a revision to the guide curve was studied by the Corps and TVA. The water management plan to drop the pool suddenly in late June for mosquito control was revised and elevation 359 was extended until July 1.

**3.5(b)** In 1993, the COE & TVA studied the possibility of extending elevation 359 with multiple lake level drops followed by a period of stable water levels after July 1<sup>st</sup>. This “stairstep” approach to drawing the lake level down to winter pool, intended to improve recreational boating opportunities by providing several periods of stable water levels. A 3-year trial began in 1993 to explore this alternative but was rejected for the following reasons:

- Increased erosion upstream of I-40 on Kentucky Lake
- High power generation demands during July and August.
- Adverse impacts to wading birds and migratory waterfowl.
- Adverse impacts to water quality due to increased retention time.
- Adverse impact to commercial navigation on the Ohio River.
- Increased probability of spilling water at Barkley resulting in high probability of fish kills due to nitrogen saturation.

- Increased flood control risk on the lower Mississippi River.

#### **4.0 Current Issues.**

##### **4.1 Current Requests for Revision to Guide Curve.**

**4.1(a)** On February 25, 2005, U. S. Congressman Ed Whitfield requested the Corps evaluate possible adjustments to keep summer water levels higher by extending “summer pool” through July 15.

**4.1(b)** The request could not be immediately implemented through a Categorical Exclusion due to significant comments from wildlife agencies regarding impacts to vegetation, aquatic resources and waterfowl.

##### **4.2 National Environmental Policy Act.**

**4.2(a)** National Environmental Policy Act (NEPA) requires Environmental Assessment (EA) be conducted on any activity resulting in significant impacts to air, land or water resources. A Scoping Letter dated October 13, 2005, was sent out to all interested parties requesting comments on the proposed change. The alternatives currently being explored are:

Extension of summer pool from 1 June until 15 July;  
Return to the original guide curve that begins drawdown on 15 June;  
No Action (continue with current operation).

**4.2(b)** A draft Environmental Assessment is expected to be complete by February 28, 2006. At the conclusion of the NEPA process, a Finding of No Significant Impact (FONSI) or need for an Environmental Impact Statement (EIS) will be determined for each alternative. The EIS may cost up to \$1 million and take 18-24 months.

**5.0 Stakeholders and Customer Interests.** A Project Delivery Team is being assembled to explore options to improve recreational boating on Lake Barkley. Team members are being requested based on their knowledge of the two reservoirs and have a personal stake in any changed operations. This multi-disciplinary team may be formed into smaller sub-PDTs. The PDT is responsible and accountable for delivering quality results.

##### **5.1 PDT Members.**

The PDT will include representatives from the following:

- Karen Pacheco - US Fish and Wildlife Service
- Paul Rister & Pat Brandon - Kentucky Department of Fish and Wildlife Resources
- Dan Fuquay - Tennessee Wildlife Resources Agency

- Don Allsbrooks - Tennessee Valley Authority
- Kaye McCullum - Kentucky's Western Waterland
- Tammy Werner – President Pennyrite Board of Realtors
- Greg Batts - Marina/Resort Operator
- Tommy McConnell - Recreators/Visitors
- Bill Lizzowski - USDA, Forest Service at Land Between the Lakes
- Bob Sneed - COE Hydrology and Hydraulics
- Tim Higgs - COE Planning Branch
- John Rittenhouse - Kentucky State Parks
- Mike Wells - Fishing/Hunting guide
- Dave Washburn - FLW Representative
- Jan Crick - Lyon County Tourism Representative
- Senator McConnell - (R, KY)
- Congressman Whitfield - (R, KY 1)
- Congressman Tanner - (D, TN 8<sup>th</sup>)
- Richard Emigholtz - Adjacent landowner
- Denise Matthews - U.S. Coast Guard, MSO Paducah, KY.
- Bob Dyer - Boat Dock Builder
- Bill Dyer - Towing Industry Representative
- Carter Edge - Southeastern Power Administration (SEPA)
- Tom Moody - City of Grand Rivers
- Butch McCullum - City of Kuttawa
- Judy Stone - City of Eddyville
- Lynn Bailey - City of Cadiz
- David Wallace - City of Dover

## **5.2 PDT Members Identification and Authority.**

**5.2(a)** Members of the PDT will be identified formally by name and position and be expected to serve for at least a one-year term.

**5.2(b)** The PDT will be expected to speak with authority on behalf of their representatives offices/organizations.

## **5.3 Responsibility.**

PDT members are responsible for:

- Being proactive in performing specified work assignments.
- Being an integral part of the project team.
- Providing liaison and coordination with others in their respective offices/organizations.
- Providing technical, policy, review and approval of work products as they are completed.
- Assisting in resolving issues in a timely way.



- Ensuring compliance with all legal obligations and Administrative policy.

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**5.4 Project Manager.** The Project Manager assures customer involvement throughout the process and ensures mutual understanding of the customer's role in project success. The PM's relationship with the customer is pivotal to achieving project success. The PM is responsible for assuring that the customer's quality objectives are clearly articulated and that the customer understands the essential professional standards, laws and policies, as well as public trust issues, which must be incorporated into the projects. The PM will facilitate the PDT with a goal of success.

## **6.0 Organizational Roles and Authorities.**

### **6.1 US Army Corps of Engineers, Nashville District:**

**6.1(a)** Planning Branch is responsible for assessing environmental and cultural resources related to project impacts, preparing mitigation plans and accomplishing environmental compliance. Planning Branch is responsible for analysis of impacts associated with non-Federal improvements which may be required to achieve economic benefits, analysis of impacts associated with navigation improvements and beneficial uses of any materials removed from the reservoir.

**6.1(b)** Hydraulics and Hydrology is responsible to provide information on historical flood and drought events and impacts both upstream and downstream for proposed changes. H&H is responsible for conducting hydraulic and navigation channel design studies to include hydrodynamic modeling and sedimentation evaluation.

**6.1(c)** Economics Branch is responsible for data regarding shipping costs, benefits and the reevaluation of project economics.

**6.1(d)** Operations Division is responsible for providing reservoir/channel information, local manpower support and mapping.

**6.1(e)** Public Affairs is responsible for specifics on communication about the project and will assist with public meetings, open houses and workshops.

**6.1(f)** Office of Counsel is responsible for legal support and advice to the PDT.

**6.1(g)** Resource Management is responsible for providing management of Federal and any non-Federal funds for the project.

(Each agency/organization represented on PDT will provide information to complete this detail.)

**7.0 Communication Strategy.** Effective communication provides the critical links among people, ideas and information that are necessary for success. It gives us connectivity energy and knowledge. The PDT will provide dialog from diverse perspectives, producing better solutions. Relationships between customers, stakeholders and state and Federal entities will be enhanced.

**7.1 Information Exchange.** Everyone involved in the project must be prepared to send and receive communications in the project “language” and format and must understand how the communications they are involved in as individuals affect the project as a whole.

**7.2 Coordination between Agencies/Organizations.** The Project Manager will assure that all PDT members involved, are aware of communications activities in support of the project. Communications within the PDT will be conducted primarily by e-mail. Face-to-face meetings will occur on an as-needed basis. Email, websites and news releases are the primary means for sending external communication.

**7.3 Project Home Page.** The PDT, in conjunction with Public Affairs and the Visual Information Office will develop a Project Home Page linked to the Nashville District Home Page. A sub-PDT will be necessary to maintain up-to-date and accurate information. Routine changes/corrections to the web pages and submission of new materials can be suggested by users and approved by sub-PDT. Substantial or controversial changes can be suggested by users, recommended by sub-PDT and approved by PM.

**7.4 Public Responses.** The PDT will develop a series of questions and answers to ensure uniform responses. Talking papers will be provided and updated as the project progresses. All team members will follow guidelines regarding the distribution and reporting of information along with generating, gathering and disseminating information.

**7.5 Evaluation.** The PDT will evaluate communications strategy/effort throughout the life of the project to determine when/if it needs to change.

**7.6 After Action Report** As this project ends, a final report on the communications effort will be developed and filed with other documents to become the historical record and to serve a “lessons learned” document.

**7.7 Risk Management.** Risk will be managed by educating the PDT on communication risk management. Progress evaluations, reassessment of priorities and resources, and the inclusion of emerging issues will be part of the risk management process.

**8.0 Measurement of Project Success.** The ultimate measure of success is increased satisfaction and safety of recreational/commercial boaters on Barkley and Kentucky Lakes. The PDT will develop performance indicators to measure success to include, but not be limited, to customer satisfaction surveys, reviews of incident/accident reports, public responses and other measurable indicators. The success of the PDT is based on the ability to develop practical solutions, providing project within time and budget constraints and for providing technical advice and assistance. A “one team – one project” behavior is incorporated into the planning and implementation of milestones.

## **9.0 Milestones.**

March 1, 2006 - First meeting of PDT.

March 15, 2006 - Complete PMP for review and approval

February 28, 2006 - Completion of Draft Environmental Assessment.

October 1, 2006 - Implementation of ideas and suggestions from PDT (dependant upon funding).

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## **10.0 PMP ACCEPTANCE SHEET.**

I have reviewed this document and certify that it contains accurate content and is sufficient to guide project execution.

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US Fish and Wildlife Service

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Date

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KY Dept of Fish & Wildlife Resources

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Date

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TN Wildlife Resources Agency

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Tennessee Valley Authority

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Kentucky's Western Waterland

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Board of Realtors

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Marina/Resort Association

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Recreation Customer

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USDA, USFS at Land Between the Lakes

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Kentucky State Parks

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Date

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Fishing/Hunting Guide

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Date

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FLW Tournament Representative

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Date

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Lyon County Tourism Representative

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Date

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Senator McConnell (R, KY)

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Date

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Congressman Whitfield (R, KY1)

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Date

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Congressman Tanner (D, TN 8<sup>th</sup>)

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Dock Permittee

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Date

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US Coast Guard

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Date

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Boat Dock Builder

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Date

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Towing Industry Representative

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Southeastern Power Administration

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City of Grand Rivers

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City of Kuttawa

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City of Eddyville

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City of Cadiz

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City of Dover

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US Army Corps of Engineers  
Nashville District Commander

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Corps, Operations

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Corps, Hydrology and Hydraulics

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Corps, Planning Branch

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Corps, Western KY Area Office

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Date